Name: ANSWER KEY

"What do you call a missing golf accessory?"

6.3 day 2

Solve the systems of equations using the addition method.
The answer to each problem will match a letter that will allow you to figure out the joke.

1. $3x + y = 6$ ·2
   $5x - 2y = 10$
   $6x + 2y = 12$
   $+ \; 5x - 2y = 10$
   $11x = 22$, $x = 2$
   $3(2) + y = 6$
   $6 + y = 6$
   $-6 \quad -6$
   $y = 0$

2. $4x - 3y = 6$
   $x + 2y = -15$ ·-4
   $4x - 3y = 6$
   $+ \; -4x - 8y = 60$
   $-11y = 66$, $y = -6$
   $x + 2(-6) = -15$
   $x - 12 = -15$
   $x = -3$

3. $x - 2y = 5$ ·3
   $3x + 8y = 1$
   $-3x + 6y = -15$
   $+ \; 3x + 8y = 1$
   $14y = 14$, $y = 1$
   $x - 2(1) = 5$
   $x + 2 = 5$
   $x = 3$

4. $3x - 5y = 22$ ·-2
   $6x - 7y = 38$
   $-6x + 10y = -44$
   $+ \; 6x - 7y = 38$
   $3y = -6$, $y = -2$
   $3x - 5(-2) = 22$
   $3x + 10 = 22$
   $3x = 12$
   $x = 4$

5. $-5x + 3y = 6$ ·2
   $3x - 2y = -3$ ·3
   $-10x + 6y = 12$
   $+ \; 9x - 6y = -9$
   $-x = 3$, $x = -3$
   $3(-3) - 2y = -3$
   $-9 - 2y = -3$
   $+9 \quad +9$
   $-2y = 6$
   $y = -3$

6. $6x - 7y = 8$ ·5
   $-5x + 2y = 1$ ·6
   $30x - 35y = 40$
   $+ \; -30x + 12y = 6$
   $-23y = 46$, $y = -2$
   $6x - 7(-2) = 8$
   $6x + 14 = 8$
   $-14 \quad -14$
   $6x = -6$
   $x = -1$

7. $9x - 2y = 4$ ·(3)
   $7x - 3y = -7$ ·(-2)
   $27x - 6y = 12$
   $+ \; -14x + 6y = 14$
   $13x = 26$, $x = 2$
   $9(2) - 2y = 4$
   $18 - 2y = 4$
   $-18 \quad -18$
   $-2y = -14$
   $y = 7$

8. $3x + 5y = 5$ ·3
   $-9x + 7y = 7$
   $9x + 15y = 15$
   $+ \; -9x + 7y = 7$
   $22y = 22$, $y = 1$
   $3x + 5(1) = 5$
   $3x + 5 = 5$
   $-5 \quad -5$
   $3x = 0$
   $x = 0$
   $(0, 1)$

A	B	S	E	N	T	E	E
8	6	4	7	3	1	2	5

E. (-3,-3) 5
O. (0,3)
I. (2,6)
T. (2,0) 1
A. (0,1) 8
R. (-3,2)
B. (-1,-2) 6
E. (-3,-6) 2
D. (8,-1)
S. (4,-2) 4
C. (-1,3)
N. (3,-1) 3
Y. (4,4)
E. (2,7) 7
W. No Solution
J. (-3,7)

1 (2,0)
2 (-3,-6)
3 (3,-1)
4 (4,-2)
5 (-3,-3)
6 (-1,-2)
7 (2,7)
8 (0,1)